GALAXY®
DIRECT HEAT CO_2 INCUBATORS

EXPANDING THE CELL CULTURE UNIVERSE WITH SUPERIOR PERFORMING 14 - 170 LITER SYSTEMS

New Brunswick
an eppendorf company

Galaxy® CO_2 Incubators

Since 1991, Galaxy CO_2 incubators have offered researchers and clinical labs a reliable and user-friendly system for culturing cells.

Now, the Galaxy line has been improved to offer even more standard features, better performance and a wider range of options.

Galaxy CO_2 Incubators were originally developed by RS Biotech, which is today a part of New Brunswick Scientific (NBS). These incubators were the first to offer a direct heat, fanless design — transforming the way cell culture is accomplished and making traditional water-jacketed incubators a rusty relic of the past.

By providing more incubation capacity, in a smaller footprint, with more options and a significant decrease in contamination risk compared to water-jacketed systems, Galaxy CO_2 incubators are easier to maintain, setup and utilize, while providing superior performance. These elements have made Galaxy systems a favorite among discerning scientists in *in-vitro* fertilization (IVF), stem cell research, as well as traditional cell culture.

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Galaxy incubators… meeting your cell culture demands today, and into the future.

GALAXY....THE RIGHT CO_2 INCUBATOR FOR YOUR LAB

NBS Galaxy incubators are offered in a range of three sizes and two models, with an unrivaled number of options.

All Galaxy incubators feature:

SIX-SIDED, DIRECT HEATING PROFILE:

Pioneered in Galaxy incubators, the unique direct-heat profile gently bathes the cells in a consistent atmosphere through gentle convection. This system guards against wide fluctuations in temperature and CO_2 that can shock cells, as seen in traditional forced-air culture systems.

FANLESS DESIGN:

Galaxy incubators pioneered elimination of conventional fans, replacing them with our unique heating profile, which sets up a gentle circulation of air. By removing the fan, Galaxy incubators have eliminated a classic source of repeated contamination, allowing the entire incubator — including upper shelf — to be utilized while maintaining uniformity. In addition, since there is no fan, there is no need for an expensive internal HEPA filter that needs to be replaced frequently.

IR CO_2 SENSOR:

Standard in all Galaxy models, is our unique InfraRed (IR) CO_2 sensor. This sensor offers specific measurement and accurate control of CO_2 levels. The traditional thermal conductivity (TC) sensor is highly sensitive to changes in chamber humidity and temperature fluctuations, and is therefore fundamentally unsuitable for use in CO_2 incubators. Uniquely, the Galaxy IR Sensor can remain in the chamber during the entire high-temperature disinfection cycle, ensuring that all chamber components are sterilized.

SIMPLIFIED CLEANING:

On all models, the chambers are pressed from a single sheet of stainless steel, with no welds or seams, eliminating another potential source of contamination. In combination with the easily-removable, replaceable shelves, this makes chamber cleaning a rapid and efficient process, so more time can be spent engaged in science and less with maintaining the instrument.

UNIQUE RANGE OF MODEL SIZES:

In common with our 170 liter incubators, our 48 liter and 14 liter incubators incorporate all of the superior design and innovation of the larger units, in a smaller format. These units offer the ideal environment for hypoxic applications, research requiring isolation, and IVF research.

OPTIONS: (see page 10 for added details)

Galaxy CO_2 incubators come with a wide variety of options allowing customization to meet your exact requirements and level of sophistication. With High-Temperature Disinfection (HTD), three levels of O_2 control, and new humidification options, there is a Galaxy incubator for every application.

NEW FEATURES:

- **25mm Access Port Standard**
  Available for adding instrumentation or additional probes.
- **RS-232 Port Standard**
  For communication and external instrument logging.
- **Perforated Shelves**
  The unique design of the perforated shelving system optimizes temperature, CO_2 and especially RH recovery to minimize the effects of door openings and closings.
- **Innovative Sealed Inner Glass Door**
  Available on 170 liter models, the new sealed inner glass door system allows viewing access to the samples while maintaining complete sample and environmental integrity. This system is designed to minimize costly CO_2 and N_2 consumption and to provide optimal sample stability and uniformity throughout the culturing process.

Available in 14 liter, 48 liter & 170 liter capacities, and in choice of sophisticated "R" models with advanced controller, or economical "S" models with LED display. Back row: Galaxy 170 S (left) & 170 R. Front row: Galaxy 14 S (left) and 48 R. Galaxy 48 S not shown.

Galaxy® 170 Liter Full-Size Incubators

Galaxy 170 R & S Series Incubators offer large capacity (170 liters, 6.0 cu. ft.) cell culture environments, with a minimal footprint. These incubators maximize capacity, while minimizing valuable laboratory space. The fanless design allows for more usable space inside the chamber. The external dimensions allow placement on or under the bench, or double-stacking on the floor.

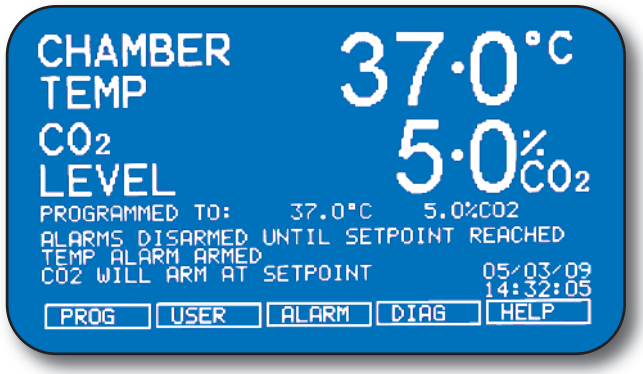
For optimally controlled environments, choose full-featured Galaxy R or economical S Series incubators:

GALAXY 170 R

Full-featured R Series incubators incorporate the 133mm [5.3"] intuitive LCD interface, and full choice of options, allowing for a customizable unit with user-friendly control, alarm and logging features. Ideal applications include cGMP work, stem cell research, cancer research as well as traditional and non-traditional cell culture.

FEATURES:

- **170 liter, 6.0 cu. ft. capacity** on a minimal footprint.
- **IR CO_2 sensor** with automatic auto-zero programmable function to ensure accurate calibrated measurements.
- **Seamless chamber.**
- **25mm Access port.**
- **Perforated shelving.**
- **Sealed inner glass door** for atmosphere conservation.
- **RS-232 communications port.**
- **Stackable** up to two high.
- **Large volume humidification pan** with dedicated, independent heater.
- **Quick and comprehensive chamber cleaning** made effortless.
- **HEPA filtration of gas supply inlets** to ensure sterility.
- **8-position shelving rack** with 4 shelves.



Large back-lit displays are standard on all R Series models, providing at-a-glance viewing of multiple parameters, help screens, trend graphs and diagnostics.

CONTROLLER:

The R Series CO_2 incubator's advanced display screen and controller allow for comprehensive and rapid analysis of real time and historical conditions:

- **72-hour continuous data logging** of temperature, alarms, door openings and CO_2, O_2 and RH if required, provides a detailed record of environmental conditions to quickly troubleshoot any unexpected results.
- **Capability to quickly change both environmental and alarm settings** through intuitive controller.
- **Diagnostic interface** to show system parameters and functions.
- **Password protection** for secure programmable settings and alarm setpoints.
- **On-screen troubleshooting** and help.

OPTIONS (see page 10 for details):

- **High-temperature disinfection.**
- **O_2 Control** (choose 1 - 19%, 0.1 - 19%, or 1 - 95%).
- **Active humidification.**
- **Cooling feature.**
- **4- or 8-Split sealing inner glass doors.**
- **Copper chamber and interior.**
- **BMS alarm relay contacts.**
- **Humidity alert package** (display and alarm).

GALAXY 170 S

The S Series Galaxy incubator provides the same high level of performance as the R Series, but uses an easily-read LED display for the interface, representing an excellent, value-priced model. The 170 S Series is ideal for traditional applications where standard incubation is required. It is also available with high-temperature disinfection option, providing an added level of reassurance against contamination.

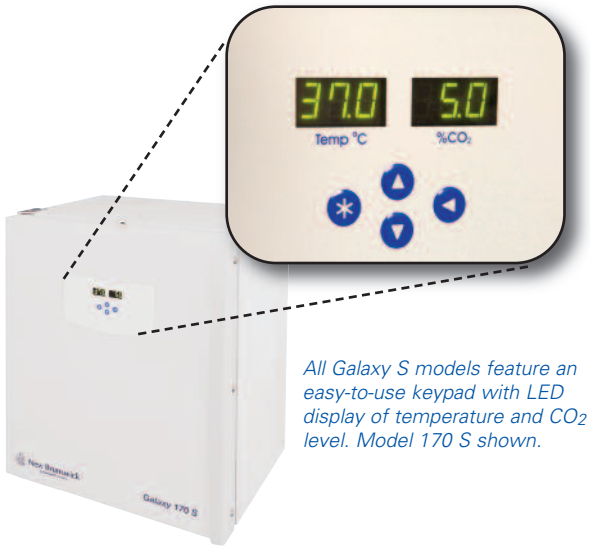
FEATURES:

- **Direct heat.**
- **170 liter, 6.0 cu. ft.** on a minimal footprint.
- **IR CO_2 sensor** with automatic auto-zero programmable function to ensure accurate calibrated measurements.
- **Seamless chamber.**
- **25mm Access port.**
- **Perforated shelving.**
- **Sealed inner glass door** for atmosphere conservation.
- **RS-232 Communications port.**
- **Stackable** up to two units high.
- **Large volume humidification pan** with dedicated, independent heater.
- **Quick and comprehensive chamber cleaning** made effortless.
- **HEPA filtration of gas supply inlets** to minimize contamination risk.
- **4-position shelving rack** with 4 shelves.

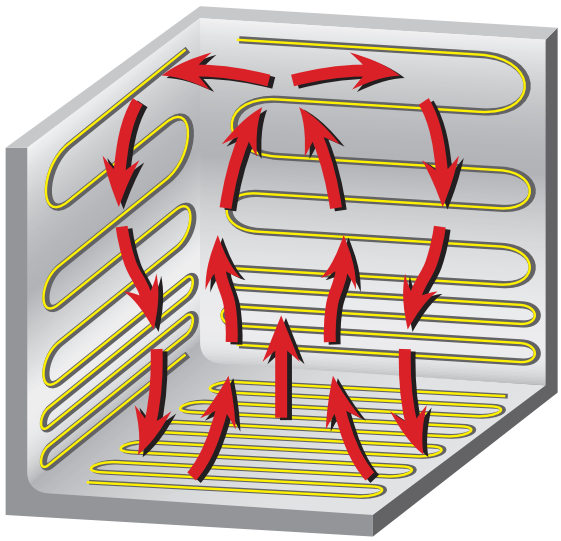
Newly-designed sealed inner glass door, described on page 3, is standard on all 170 models. Shelf depth has been reduced to optimize user access to all samples.

OPTIONS (see page 10 for details):

- **High-temperature disinfection.**
- **4- or 8-Split sealing inner glass doors.**
- **Copper chamber and interior.**
- **BMS alarm relay contacts.**



All Galaxy S models feature an easy-to-use keypad with LED display of temperature and CO_2 level. Model 170 S shown.



Galaxy's unique six-sided direct-heating profile produces a very gentle convection circulation of chamber atmoshpere for exceptionally uniform temperature and incubator environment.

Galaxy® 48 Liter Personal-Size Incubators

The Galaxy 48 R & S Series provide the luxury of owning a single-user, personal-sized 48 liter (1.7 cu. ft.) incubator. They offer the same standard features as the larger 170 liter models, including fanless design to allow for maximum capacity. Galaxy 48 models easily fit on a benchtop for laboratories requiring small volume cell culture, and are ideal for isolation studies such as viral work.

Choose full-featured R Series or economical S Series models:

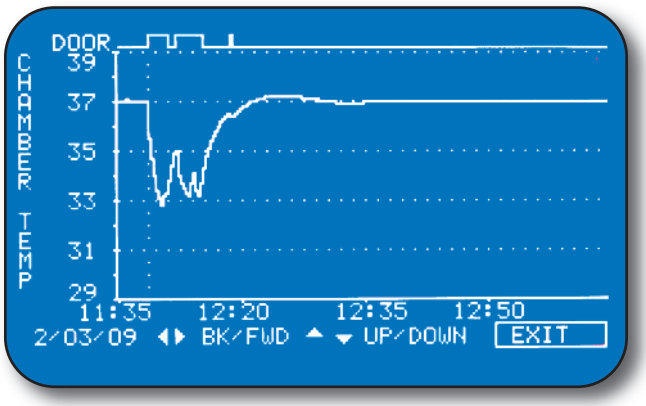
GALAXY 48 R

Galaxy 48 R incubators feature an integrated and heated outer-door window to allow viewing your cultures without compromising the culture environment.

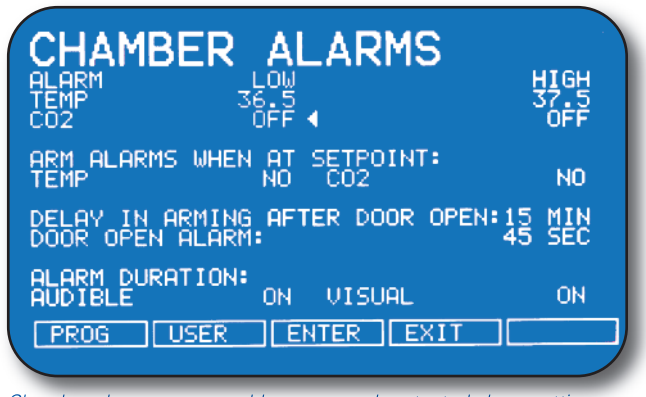
They are ideally suited for hypoxic applications, including *in-vitro* fertilization (IVF) and stem cell research, with O_2 control option. The relatively compact 48 liter chamber substantially reduces the significant gas consumption often encountered when using larger incubators.

CONTROLLER:

The controller offers the same 72-hour data logging and diagnostic interface as on the 170 R described on page 4. Examples of graphical logging and alarm screens are shown below.



Temperature, humidity, CO_2 control, door openings and alarms are captured in a 72-hour downloadable record, and shown on the large display for easy monitoring.



Chamber alarm screen enables password protected alarm setting and easy access to any alarm information.

FEATURES:

- **Convenient benchtop size and footprint** — only 48 x 47 cm [18.9" x 18.5"].
- **Integrated, heated, viewing window in outer door** allows observation without disturbing cultures.
- **Seamless, fanless design.**
- **RS-232 and 25mm access port.**
- **Stackable.**
- **Low gas consumption.**
- **Perforated shelving** to facilitate faster recoveries.
- **Large volume humidity pan.**
- **CO_2 HEPA filtration.**

OPTIONS (see page 10 for details):

- **High-temperature disinfection.**
- **O_2 control** (Choose 1-19%, 0.1-19%, 1-95%).
- **Two split inner glass doors**.
- **Humidity alert package** (display and alarm).
- **BMS management system relays.**

Galaxy 48 R features an advanced controller and extra large display screen. (Shown with viewing window open.)

GALAXY 48 S

Galaxy 48 S Series incubators are entry-level models, offering the same superior performance as 48 R models. The S Series use an easily-read LED interface and includes an integrated viewing window, standard 25mm access port and RS-232 communications package. They are ideal for laboratories with limited space to house large incubators, or for standard cell culture applications where the larger 170 liter capacity systems are not required.

Galaxy 48 S incubators come with an easy-to-use keypad and viewing window.

FEATURES:

- **Small footprint with mid-sized capacity.**
- **Seamless chamber.**
- **Fanless design.**
- **25mm access port.**
- **RS-232 port.**
- **User-friendly LED display.**

OPTIONS (see page 10 for details):

- **BMS management system relays.**
- **Two split inner glass doors**.

All Galaxy incubators feature a seamless chamber, with no corners, seams or welds, to minimize contamination risk.

The small size of Galaxy 48 and 14 incubators make them ideally suited to critical applications such as in-vitro fertilization, where sample isolation is imperative.

Galaxy® 14 Liter Micro-Size Incubators

Galaxy 14 S is a unique, mini-sized 14 liter (0.5 cu. ft.) CO_2 incubator — originally designed for but not limited to *in-vitro* fertilization (IVF) work. Its compact size is ideal for individually supporting and isolating cultures for specific patients or samples. The 14 S easily fits into IVF workstations and under laminar flow hoods for complete minimization of contamination risk.

It is ideal for stem cell and IVF applications, including oocyte collection and preparation, pre-implantation diagnostics, embryo transfers, and sperm preparation. When adding the 1 - 19% oxygen control option, the 14 S becomes a small hypoxic incubator, consuming a minimal amount of nitrogen.

GALAXY 14 S

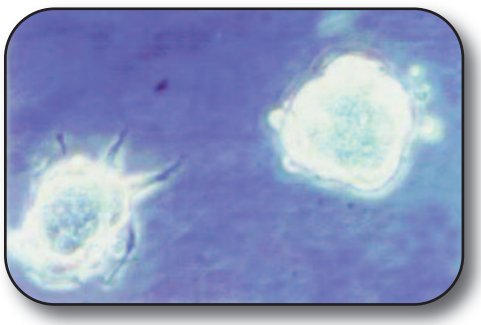
The 14 S provides an LED interface with RS-232 and 25mm access port as standard. A small footprint, yet spacious chamber, allows for specific applications to be carried out in isolation from general cell culture, ensuring assay validity.

FEATURES:

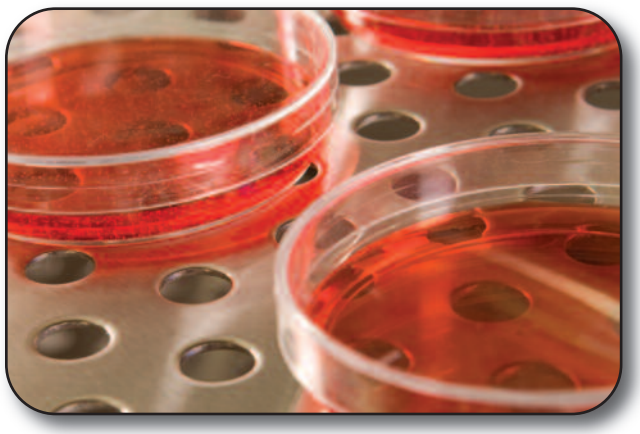
- **Convenient benchtop size and footprint.**
- **Size allows for incorporation in workstations and laminar hoods.**
- **Seamless, fanless chamber design.**
- **RS-232 and 25mm access port standard.**
- **Low gas consumption.**
- **Perforated shelving** to allow for faster recoveries.
- **External CO_2 supply line HEPA filtration.**

OPTIONS (See page 10 for details):

- **1 - 19% O_2 control.**
- **Single inner glass door.**
- **BMS alarm relay contacts.**



Using Galaxy's advanced 1 - 19% oxygen control option, stem cells can be cultured in near-to in-vivo conditions, avoiding cell differentiation.



Rapid recovery of temperature, CO_2 and RH after door opening is facilitated with our unique new perforated shelf design.

FAQs and Specialized Applications

FREQUENTLY ASKED QUESTIONS, ALL MODELS

Q. I am hesitant to move from a water-jacketed incubator to a direct heat system. Why should I switch?

A. *While water-jacketed (WJ) incubators have, in the past, been suitable for generalized cell culture, they truly are an outdated technology. WJ incubators are bulky, often taking up valuable lab space, offer less capacity in relation to that space, have lower performance and control, are difficult to maintain and do little to prevent contamination. High-temperature disinfection is also not possible in WJ designs. The direct-heat design provides an innovative solution to these issues and is ideal for culture in today's laboratory.*

Q. I am interested in the high-temperature disinfection (HTD) option for periodic preventative maintenance. What can you tell me about its effectiveness?

A. *The Galaxy has a 120°C 4-hour HTD cycle that has been shown to be very effective in controlling contaminants. See www.nbsc.com/galaxy for downloadable report. Sterility is a function of temperature and time in these cases. The CO_2 sensor does not have to be removed from the unit, making running the HTD cycle efficient, rapid, and effective.*

Q. I may want to add the O_2 control option to my Galaxy incubator at a later date. Can this be retrofitted?

A. *The O_2 control feature cannot be field retrofitted and is only factory installed. We suggest ordering it at the time of purchase to provide a single incubator that will meet your requirements for many years to come.*

Q. Can I externally data log my incubators?

A. *Yes, all new Galaxy incubators come with an integrated RS-232 port that allows data to be logged remotely using BioCommand® SFI software.*

Q: How should I clean/disinfect my Galaxy incubator?

A. *Currently, the only acceptable disinfecting agent is a solution of 70% Isopropanol (isopropyl alcohol) and 30% distilled water. Carefully follow the cleaning guidelines described in your user's manual.*

Q: Are there any parts which should be regularly renewed on my Galaxy?

A. *Yes. Replace the CO_2 supply line HEPA filter and auto-zero HEPA filter* at least once per year. (* Auto-zero filter used in R models only.)*

Q: Do you offer an incubator that can be run at around or below the ambient temperature of my lab?

A. *Yes, we can offer the Galaxy 170 R with cooling option. The cooled incubator can be used normally at 37°C or other temperature above ambient, and also works at temperatures as low as 10°C below ambient.*

Q: I see that Galaxy 170 incubators have a door hinge on the left side. Can I order it hinged on the right?

A. *Yes, but we apply a surcharge for this non-standard arrangement; and delivery time will be longer.*

STEM CELL APPLICATIONS

Stem cell research is advancing at a rapid pace and recent studies have shown that for many cell types, an environment closer to the physiological oxygen concentrations (2 - 5%) the cells normally encounter in-vivo can result in:

- *smaller cells with reduced complexity*
- *reduced spontaneous differentiation*
- *increased clonogenicity*
- *reduced spontaneous chromosomal aberration frequencies*
- *extensive propagation of specialized clonal derivative cells.*

Galaxy CO_2 incubators offer a direct-heating system which gently bathes cells in warm convected air. In addition, we offer highly regulated CO_2 and O_2 environments with the ability to closely mimic physiological normoxic conditions and to provide the optimal environment for stem cell work. Rapidly emerging stem cell technology requires a greater sophistication in the incubation process than traditional incubators can provide.

With the availability of three different ranges of oxygen control (0.1 – 19%, 1 - 19%, 1 - 95% O_2 ranges) Galaxy incubators offer stem cell scientists greater choice and flexibility in controlling cellular O_2 levels than any other brand of CO_2 incubator. The features and design of Galaxy incubators make them ideal for this critical and sensitive emerging field of study.

IVF APPLICATIONS

Galaxy CO_2 incubators allow clinicians and embryologists to closely, reliably and repeatability mimic the environmental conditions that sperm, oocytes, blastocysts and developing embryos encounter in-vivo. Each Galaxy incubator is custom-manufactured, giving practitioners the largest choice of optional features. Many features can be also be retrofitted at a later date, allowing modifications to operating parameters, as optimal IVF incubation conditions are further defined.

Choose from three sizes: Galaxy 170 *for high cycle throughput clinics and for media storage.* **Galaxy 48** *is compact, stackable, and easily capable of incubating up to six patient samples.* **Galaxy 14** *is ideal for culturing 1 to 2 patient samples; and for incubation while samples undergo observation and manipulation.*

Wide choice of O_2 control options:
1 - 19%, 1 - 95%, or 0.1 - 19%

Specialized IVF service and support
New Brunswick has a dedicated global network of specialist IVF distributor partners, who have in-depth knowledge and specialist technicians who can respond immediately and restore correct function to your incubator.

With the many unique advantages that Galaxy CO_2 incubators offer, together with unparalleled support and service, it is not surprising that they have become the incubators of choice in IVF clinics.

Galaxy® Options

CUSTOMIZE YOUR INCUBATOR WITH THESE OPTIONS

HIGH TEMPERATURE DISINFECTION:

Available on the 170 R & S, and 48 R models.

- 120°C 4-hour cycle.
- Convenient and simple operation.
- CO_2 Sensor remains in the chamber.
- Ensures a clean and disinfected environment for cell culture.

O_2 CONTROL:

Available on the 170 R, 48 R, and 14 S.

- Up to three levels of control options.
- 1 - 19% for most common hypoxic applications.
- 0.1 - 19% for more stringent oxygen requirements.
- 1 - 95% for hyperoxic and hypoxic incubation.
- Ideal for Stem Cell, Oncology, and IVF studies.

NEW ACTIVE HUMIDIFICATION SYSTEM (AHS):

Available on the 170 R.

- Rapid humidification of the CO_2 chamber.
- User-defined humidification settings to 95%.
- Non-condensing humidity.
- Ideal for low sample volume and microtiter plate applications.
- External UV disinfection of humidified atmosphere.

NEW COOLING SYSTEM:

Available on the 170 R.

- Allows studies at or below ambient temperature.
- Effectively cools to 10°C below ambient temperature.
- Redesign offers an efficient and uniformly cooled chamber.

BUILDING MANAGEMENT SYSTEM (BMS) RELAY:

Available on all models.

- Relay for integration with building alarm system.

COPPER CHAMBER:

Available on 170 R and S.

- Oxidizing copper/copper-plated chamber and chamber fittings provide added contamination protection.

SPLIT INNER DOORS:

Available on 170 R & S, and 48 R & S.

- 4 or 8 Split inner glass door options available on 170 R & S models.
- 2-Split inner glass door option available on 48 R & S models.
- Offers enhanced chamber temperature uniformity and reduced gas consumption.
- Maintains easy access to samples.

BIOCOMMAND® SFI:

Available on all models.

- NBS data logging and control software designed specifically for our CO_2 Incubators.
- Provides historical data logging and report generation to local computer, and for multiple units.
- Connects through RS-232 port.

Ordering Info

New Brunswick
an eppendorf company

Galaxy Incubator Model **	170 R	170 S	48 R	48 S	14 S
Standard, 120V	CO170R-120-0000	CO170S-120-0000	CO48R-120-0000	CO48S-120-0000	CO14S-120-0000
Standard, 230V	CO170R-230-0000	CO170S-230-0000	CO48R-230-0000	CO48S-230-0000	CO14S-230-0000
With High-Temp. Disinfection, 120V	CO170R-120-1000	CO170S-120-1000	CO48R-120-1000	—	—
With High-Temp. Disinfection, 230V	CO170R-230-1000	CO170S-230-1000	CO48R-230-1000	—	—
With 1 - 19% O_2 Control, 120V	CO170R-120-0200		CO48R-120-0200	—	CO14S-120-0200
With 1 - 19% O_2 Control, 230V	CO170R-230-0200	—	CO48R-230-0200	—	CO14S-230-0200
With High-Temp. & 1-19% O_2 Control, 120V	CO170R-120-1200	—	CO48R-120-1200	—	—
With High-Temp. & 1-19% O_2 Control, 230V	CO170R-230-1200	—	CO48R-230-1200	—	—
Additional Factory-Installed Options					
O2 Control, 0.1 - 19%	P0628-5410	—	P0628-6280	—	—
O2 Control, 1 - 95%	P0628-5400	—	P0628-5260	—	—
Cooling System (below ambient) ø	P0628-6810	—	—	—	—
Active Humidification ø	P0628-6800	—	—	—	—
Building Management System Relays	P0628-5540	P0628-5651	P0628-5340	P0628-5340	P0628-6300
Single Inner Glass Door	Standard	Standard	—	—	P0628-6210
Split Inner Doors - 2	—	—	P0628-5330	P0628-5330	—
Split Inner Doors - 4	P0628-6780	P0628-6780	—	—	—
Split Inner Doors - 8	P0628-6781	P0628-6781	—	—	—
Humidity Alert Package (Display and Alarm)	P0628-6820	—	P0628-6770	—	—
Internal Sealed Power Supply (IP66)	P0628-5560	P0628-5560	P0628-5350	P0628-5350	—
Copper Chamber & Chamber Fittings	P0628-5612	P0628-5612	—	—	—
Accessories - Gas Management & Analysis					
Two Stage CO_2 Regulator	P0628-5010	P0628-5010	P0628-5010	P0628-5010	P0628-5010
Two Stage N_2 Regulator	P0628-7220	—	P0628-7220	—	P0628-7220
CO_2 Supply Line HEPA Filters (2)	P0628-5020	P0628-5020	P0628-5020	P0628-5020	P0628-5020
CO_2 In-line Pressure Regulator	P0628-5030	P0628-5030	P0628-5030	P0628-5030	P0628-5030
CO_2 Cylinder Auto-Changeover Controller	P0628-5000	P0628-5000	P0628-5000	P0628-5000	P0628-5000
Auto-Zero HEPA Filters (5)	P0628-5060	P0628-5060	P0628-5060	P0628-5060	P0628-5060
CO_2 Gas Analyzer Kit	P0628-5040	P0628-5040	P0628-5040	P0628-5040	P0628-5040
Spare CO_2 Gas Analyzer Tubes (10)	P0628-5050	P0628-5050	P0628-5050	P0628-5050	P0628-5050
Electronic CO_2 Gas Analyzer	P0628-6150	P0628-6150	P0628-6150	P0628-6150	P0628-6150
Electronic CO_2 & O_2 Gas Analyzer	P0628-6831	P0628-6831	P0628-6831	P0628-6831	P0628-6831
Electronic CO_2 & O_2 Gas A. w/ °C & RH meas.	P0628-6832	P0628-6832	P0628-6832	P0628-6832	P0628-6832
Calibration Gas 5%, 20 Liter Disposable Canister	P0628-7211	P0628-7211	P0628-7211	P0628-7211	P0628-7211
Control Valve & Flow Indicator for 20 Liter Canister	P0628-6061	P0628-6061	P0628-6061	P0628-6061	P0628-6061
Calibration Gas 5%, 105 Liter Disposable Canister	P0628-7210	P0628-7210	P0628-7210	P0628-7210	P0628-7210
0.3 liter/min Flow Regulator w/ pressure Gauge†	P0628-7221	P0628-7221	P0628-7221	P0628-7221	P0628-7221
Accessories - Shelves, Pans & Stacking Stand					
Multi-Position Shelf Rack	Standard	P0628-6390	P0628-5100	P0628-5100	P0628-6170
Additional Shelf, non-perforated	P0628-6241	P0628-6241	P0628-5070	P0628-5070	P0628-6180
Additional Shelf, perforated	P0628-6251	P0628-6251	P0628-5080	P0628-5080	P0628-7200
Lower and Upper Stacking Frame, with casters	P0628-6270	P0628-6270	P0628-5091	P0628-5091	—
Lower Frame, with casters	P0628-6490	P0628-6490	P0628-5090	P0628-5090	—
Upper Stacking Frame	P0628-7260	P0628-7260	P0628-6720	P0628-6720	—
Wall Mounting Frame for 2 Incubators	—	—	—	—	P0628-6230
Accessories - Electronics & Software					
BioCommand® SFI Software	M1291-0054	M1291-0054	M1291-0054	M1291-0054	M1291-0054

** Part numbers subject to change without notice. Additional incubator configurations are also available. Ordering them, or ordering custom options, will affect delivery and shipping. Not all options are compatible. Ask your NBS Sales Rep for quotation. All models are 50/60 Hz units.

† For Reusable 105 liter cylinder.

ø Please check availability before ordering. Cooling option cannot be combined with High Temperature Disinfection options.

Galaxy® Specifications

		Galaxy 170 R & S	Galaxy 48 R & S	Galaxy 14 S
Chamber	Volume	170 liters / 6.0 cu. ft.	48 liters / 1.7 cu. ft.	14 liters / 0.5 cu. ft.
Temperature Management	Range	4ºC above ambient to 50ºC	4ºC above ambient to 50ºC	5ºC above ambient to 50ºC
	Control	± 0.1ºC	± 0.1ºC	± 0.1ºC
	Stability	± 0.1ºC	± 0.1ºC	± 0.1ºC
	Uniformity	≤ ± 0.3ºC	≤ ± 0.3ºC	≤ ± 0.2ºC
CO_2 Gas Management	Range	0.2 – 20%	0.2 – 20%	0.2 – 20%
	Control	± 0.1%	± 0.1%	± 0.1%
	Stability	± 0.2%	± 0.2%	± 0.2%
	Uniformity	± 0.1%	± 0.1%	± 0.1%
	Recovery (up to 90% setpoint)	0.7%/minute	0.7%/minute	> 0.7%/ minute
	Connections	6mm tubing	6mm tubing	6mm tubing
	Gas Service Pressure	0.35 bar / 5 psi	0.35 bar / 5 psi	0.35 bar / 5 psi
Humidity	Reservoir	Removable stainless pan	Removable stainless pan	Removable stainless pan
	Volume	2.5 liters	0.5 liters	0.3 liters
	RH (@ 37°C)	up to 95%	Normal 90 - 95%	> 90% at 37°C
Shelves	Dimensions per Shelf ø	51.9 x 42.6 cm (20.4" x 16.8")	35.1 x 26.1 cm (13.8" x 10.3")	22.0 x 18.4 cm (8.7 x 7.2")
	Shelves Provided	4	3	2
	Adjustability	R: 8 position. S: 4 position	6 position	4 position
Dimensions		**W x D x H**	**W x D x H**	**W x D x H**
	Chamber (mm)	540 x 451 x 693 mm	401 x 308 x 401 mm	233 x 208 x 294 mm
	Chamber (inches)	21.3" x 17.8" x 27.3"	15.8" x 12.1" x 15.8"	9.2" x 8.2" x 11.6"
	External (mm)	685 x 677 x 848 mm	484 x 475 x 648 mm	313 x 285 x 454 mm **
	External (inches)	27" x 26.7" x 33.4"	19.1" x 18.7" x 25.5"	12.3" x11.2" x 17.9"
	Shipping Container (mm)	830 x 830 x 1100 mm	630 x 630 x 920 mm	580 x 440 x 400 mm
	Shipping Container (inches)	32.7" x 32.7" x 43.3"	24.8" x 24.8" x 36.2"	22.8" x 17.3" x 15.7"
Electrical	Voltage	120 V & 220 - 240 V, 50/60 Hz	100 - 120 V & 220 - 240V, 50/60 Hz	100 -120 V & 220 - 240 V, 50/60 Hz
	Power	500 W	500 W	700 W
	Power, High Temp. Option	1000 W	1000 W	N/A
	Consumption to 37°C	< 0.08 kWh	< 0.1 kWh	< 0.06 kWh
Weight	Net	90 kg / 198 lbs	32 kg / 71 lbs	12.5 kg / 28 lbs
	Shipping	115 kg / 254 lbs	50 kg / 110 lbs	18.5 kg / 41 lbs
Warranty	Coverage	Comprehensive 2-year warranty on parts and labor †		
	Maintenance Contracts	Ask your NBS sales representative about our extended maintenance contracts		
Certification		CE Certified		

* Specifications subject to change without notice. All tests performed at ambient temp. of 22°C, the incubator set at 37°C and 5% CO_2. Recovery data follows a 15 second door opening. ø Shelf dimensions are shown wide x deep x high.
** Galaxy 14 S Dimensions are for single unit. When double-stacked, allow 313 x 285 x 887 mm (12.3" x 11.2" x 34.9").
† O_2 sensor has a one year warranty.

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